

REMARKS

Re-examination and allowance of the present application is respectfully requested.

In the Final Office Action mailed on August 9, 2004, claims 1-5 and 9-11 were rejected under 35 U.S.C. §103(a) over HYNECEK (U.S. Patent No. 4,679,212) in view of TANI (U.S. Patent No. 5,339,162), and further in view of Applicants Admitted Prior Art. Claims 6, 8 and 12 were rejected under 35 U.S.C. §103(a) over HYNECEK in view of TANI and Applicants Admitted Prior Art, and further in view of LEVINE (U.S. Patent No. 4,703,442).

Applicant respectfully traverses the various 35 U.S.C. §103(a) rejections of claims 1-6 and 8-12. Initially, Applicant respectfully submits that the outstanding Final Official Action is incorrect in asserting that FIG. 17 and column 5, lines 7-12 in HYNECEK disclose or suggest a full frame transfer type imaging device, as was previously recited in claim 2 and independent claim 9, and which has been added to independent claim 1 (from which claim 2 depended) as well as independent claim 10. In this regard, Applicant respectfully submits that the amendment to claim 1 does not present a new issue for consideration of the Examiner, insofar as claim 1 has been amended to recite features previously recited in an improperly rejected dependent claim. Applicant further submits that claim 10 recites features similar, though of a different scope, to the features recited in claim 1. Further, as noted above, claim 9 already recited that the imaging device is "of a full frame transfer type". Accordingly, Applicant respectfully submits that entry of the present amendments to the independent claims should be entered, though the application is subject to final rejection.

Applicant has amended claims 1 and 10 to recite "the light receiving element and a vertical transfer passage being provided in common in said full frame transfer type imaging device". In this

regard, Applicant notes that the present specification discloses, at page 9, lines 6-22, that "[t]he plurality of light receiving elements 33, which are arranged in the vertical transfer direction, function as a vertical transfer CCD (i.e., a vertical transfer passage), through which a signal charge generated in each of the light receiving elements 33 is transferred to a horizontal transfer CCD". Applicant submits that the above-noted disclosure is only an example of a light receiving element and a vertical transfer passage being provided in common. However, as explained below, Applicant submits that the features of original claim 2, which have been added to independent claims 1 and 10, are not disclosed or suggested in the combination of references applied in the outstanding Official Action.

With respect to the amended features of the independent claims, neither FIG. 17, column 5, lines 7-12 or any other disclosure in HYNECEK discloses a full frame type transfer type imaging device. For example, at column 5, lines 1-6, HYNECEK only notes that "the present invention may be used with all types of charge transfer devices, including buried-channel, surface channel, and virtual phase CCD devices, as well as CID and CTD devices". However, HYNECEK does not disclose or suggest any imaging device is a full frame transfer type imaging device (e.g., as compared to an interline transfer type imaging device).

Additionally, Applicant submits that the outstanding Final Official Action is incorrect in asserting that Figure 17 in HYNECEK discloses or suggests a "light receiving element", as recited in claims 1, 9 and 10. Rather, FIG. 17 of HYNECEK appears to disclose a transfer CCD in which the charge pumping operation is carried out. While the charge pumping operation is carried out in the transfer CCD in HYNECEK, the transfer CCD in HYNECEK is not a "light receiving element". In contrast, claim 1 recites that "a charge pumping operation is performed" based on "said voltage

control processor fixing a voltage level of said first electrode and periodically changing a voltage level of said second electrode, in accordance with a length of said accumulating period". Further, claim 9 recites that "a charge pumping operation is performed" based on "a voltage control processor that controls voltage levels of said first and second electrodes during said accumulating period, in accordance with a length of said accumulating period". Moreover, claim 10 recites that "a voltage level of said first electrode and said second electrode" are controlled "during said accumulating period" and "said accumulating period is inversely related to a period of a charge pumping operation". In this regard, the first electrode and the second electrode in each of claims 1, 9 and 10 are provided to a light receiving element of an imaging device. In other words, while HYNECEK discloses a light receiving (imaging) element that is used with a charge transfer CCD, the device shown in FIG. 17 is only described as the charge transfer portion, and not as a light receiving element of an imaging device.

Applicant further submits that FIG. 17 of HYNECEK fails to disclose a light receiving element provided in common with a vertical transfer passage. As noted above, FIG. 17 of HYNECEK is not disclosed to represent a light receiving element. Accordingly, Applicant submits that FIG. 17 of HYNECEK does not disclose or suggest that the transfer CCD is a light receiving element provided in common with a vertical transfer passage (i.e., at least because the CCD is not disclosed as a light receiving element).

Applicant further submits that no modification of the teachings of HYNECEK would result in the invention recited in independent claims 1, 9 and 10. In this regard, providing a full frame transfer type imaging device in HYNECEK would destroy a substantial portion of the teachings of

HYNECEK. Further, conducting a charge pumping operation in a light receiving element in HYNECEK would destroy a substantial portion of the teachings, including the disclosure related to FIG. 17, in HYNECEK. Accordingly, Applicant respectfully submits that there is no motivation provided in HYNECEK or the prior art generally to modify the teachings of HYNECEK to obtain the invention recited in claims 1, 9 and 10.

Accordingly, Applicant respectfully submits that each of claims 1, 9 and 10 is allowable, at least for each of the reasons set forth above. Applicant further submits that claims 2-6, 8 and 11-12 are allowable, at least for depending, directly or indirectly, from an allowable independent claim, as well as for additional reasons related to their own recitations. Accordingly, reconsideration and withdrawal of each of the outstanding rejections, as well as an indication of the allowability of each of the claims now pending, is respectfully requested.

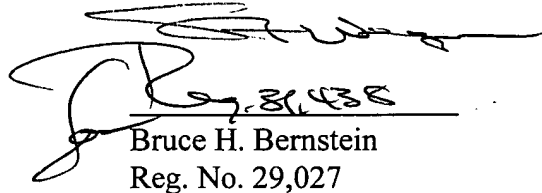
SUMMARY AND CONCLUSION

In view of the fact that none of the art of record, whether considered alone or in combination, discloses or suggests the present invention as now defined by the pending claims, and in further view of the above amendments and remarks, reconsideration of the Examiner's action and allowance of the present application are respectfully requested and are believed to be appropriate.

Any amendments to existing claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

If there should be any questions concerning this application, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,
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